**Lesson**: History of Respiratory Disorders

**Course**: Gr. 11 Biology, University

**Unit**: Animals: Structure and Function

**Big Ideas**

**Learning Goals**

**Overall Expectations**

*E3. demonstrate an understanding of animal anatomy and physiology, and describe disorders of the respiratory, circulatory, and digestive systems*

*E1. analyse the relationships between changing societal needs, technological advances, and our understanding of internal systems of humans*

**Specific Expectations**

*E3.4 describe some disorders related to the respiratory, digestive, and circulatory systems (e.g., asthma, emphysema, ulcers, colitis, cardiac arrest, arteriosclerosis)*

**Prior Knowledge**

**Required Materials**

* *Laptops or Book computer lab*
* *Access to Internet and library resources*

**BEFORE – Minds On (~10 min)**

**Teacher**: Lesson Agenda and Big Ideas on Board (chalkboard outline)

**Activity**: Entrance Card

* Quick review question about respiratory system (previous lessons).
* Something(s) you know about respiratory disorder? (Can be specific to disease or general)
* Something(s) you are wondering about respiratory disorder?
* Other ideas???

**Rationale for T/L strategy:**

* Clarify the Action/Task
* Assesses prior knowledge and readiness, assessment for learning
* Allows gradual recall of information
* Allow teacher to identify and challenge student misconceptions
* Make connections between prior knowledge and new knowledge that is to be learned
* Assessment *for* Learning

**DURING – Directed Learning and Collaborative Learning (~45 min)**

**Directed Learning:** Short PowerPoint Presentation on Hx of Pulmonology (3 min max.)

* Branch of internal medicine – dealing with diseases of the respiratory tract
* Pulmonary circulation discovery – pioneered research and study of respiratory system and study of disease
* Introduce disorders/diseases of interest for lesson

**Collaborative Learning:** Jigsaw on History of Respiratory Related Diseases

Diseases: tuberculosis, asthma, CF, emphysema, influenza, common cold, asbestos-related disease, allergies, pulmonary fibrosis

Home groups of 4 or 5, each member chooses a respiratory-related disease to study (from a list), join “expert” groups to investigate:

* Disease Overview (biological, social)
* Historical Significance (Canada and globally)
* Historical vs. Present Prevalence
* Historical vs. Present Treatment(s)
* Major breakthroughs?
* Any other significant information?

“Experts” from each disease group return to home groups to share learning.

Opportunity for formative assessment (cooperative work, work habits, etc.)

**AFTER – Consolidation (~10 min)**

**Activity:** Class Discussion (brief and student-lead)

* Main findings?
* Anything in particular that stood out to you/you would like to share with the class?

**Exit Card**

* Something(s) new learned?
* Something(s) still wondering about?
* Star and a Wish
* Anything else…

Assessment for and as learning